USAWC STRATEGY RESEARCH PROJECT

IMPERATIVES FOR EFFECTIVE POST-CONFLICT RECONSTRUCTION CONTRACTING

by

Colonel Gary D. Pease
United States Army

Colonel Philip M. Evans
Project Adviser

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
30 MAR 2007	**Strategy Research Project**	**00-00-2006 to 00-00-2007**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Imperatives for Effective Post-Conflict Reconstruction Contracting	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
Gary Pease	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
U.S. Army War College,Carlisle Barracks,Carlisle,PA,17013-5050	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
See attached.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**		**23**	

ABSTRACT

AUTHOR: Colonel Gary D. Pease

TITLE: Imperatives for Effective Post-Conflict Reconstruction Contracting

FORMAT: Strategy Research Project

DATE: 15 March 2007 WORD COUNT: 6,165 PAGES: 23

KEY TERMS: Stability Operations; Iraq Emergency Reconstruction and Relief Fund; Commanders Emergency Reconstruction Program; Design-Build Contracts

CLASSIFICATION: Unclassified

The successful conduct of post-conflict reconstruction operations has strategic significance because it enhances United States vital interests by setting the stage for stable and effective governments in key areas of the world. Reconstruction can be an essential element of post-conflict security, providing essential services to the population. Reconstruction experiences in Iraq leads to many lessons learned. These include limitations on the use of large scale, cost-plus deign-build reconstruction contracts, especially in uncertain and insecure environments, due to their high administrative costs. Additionally, highly flexible, small scale programs, such as the Commander's Emergency Response Program are essential to effective reconstruction. Stability in overall program management and leadership is also critical. In general the four imperatives for effective post-conflict reconstruction are: flexibility in execution is essential; military organizations, supported by civilian expertise, should assist in the overall development of requirements; a single U.S. government agency should be designated as the lead agency throughout the duration; and leadership needs to make a clear decision as to when security is a pre-cursor for reconstruction rather than a result of reconstruction.

IMPERATIVES FOR EFFECTIVE POST-CONFLICT RECONSTRUCTION CONTRACTING

This strategic research project will examine imperatives for effective post-conflict construction contracting. It will discuss background issues that demonstrate the essentiality of effective reconstruction operations in a post-conflict environment. The successful conduct of reconstruction operations can have strategic significance because it can enhance United States vital interests by setting the stage for stable and effective governments in key areas of the world. This paper will also review recent in Iraq and list some key lessons learned. It will perform a detailed analysis of post conflict reconstruction operations and some general recommendations. It will also show that in post conflict reconstruction, it is essential to match reconstruction requirements to appropriate contracting vehicle while minimizing risk. Finally, this paper will conclude with four specific recommendations for post-conflict reconstruction operations. They are: flexibility in execution is essential; military organizations, supported by civilian expertise, should assist in the overall development of requirements; a single U.S. government agency should be designated as the lead agency throughout the duration; and leadership needs to make a clear decision as to when security is a pre-cursor for reconstruction rather than a result of reconstruction.

Background

As demonstrated successfully in post-conflict operations in Germany and Japan, post-conflict reconstruction can have strategic effects by setting the stage for development of stable partner nations in key areas of the world. Reconstruction can also provide significant non-lethal effects and enhance security and stability during or after conflict. As the Army and Marine Corps newest manual, Counterinsurgency states: "Some of the best weapons for counterinsurgency do not shoot."[1] Modern experiences in Iraq and Afghanistan have taught us that reconstruction, to include the provision of basic services, is essential to establishing the legitimacy of the government in the minds of the people, a key requisite for success in counterinsurgency (and stability and security) operations.[2] As explained by MG Peter G. Chirarelli in his article "Winning the Peace; The Requirement for Full Spectrum Operations," reconstruction projects that both provided employment and helped restore essential services in the embattled Sadr City section of Baghdad in 2004 were essential in establishing a secure environment.[3] Perhaps more importantly, there was a direct downward correlation between attacks on coalition forces and reconstruction activities, resulting in an "epiphany" among the

leaders and soldiers of Task Force Baghdad when they realized that reconstruction was really about force protection.[4]

The reconstruction of Iraq after Operation Iraqi Freedom (OIF) has been described by many as the largest program of its type since the reconstruction of Germany after World War II. Any reconstruction project is a difficult task; the Iraq effort has turned out to be especially so. The U.S. Government Accountability Office (GAO) stated: "rebuilding a nation after decades of neglect and multiple wars is an inherently complex, challenging, and costly undertaking."[5] Review of the reconstruction effort in Iraq brings to light some imperatives for a successful reconstruction contracting program.

Success in any construction program requires a clear understanding of requirements, effectively matched against available resources.[6] For post-conflict reconstruction, these requirements include the initial restoration of essential services as well as longer-term, sustainable capital reconstruction projects to ensure the long term viability of the nation. For restoration of essential services, time is an essential requirement. They must be restored as quickly as possible to affect the population's perception of legitimacy of the government. When reviewing the Iraq reconstruction program, the GAO noted: "One of the factors that can lead to poor DOD (Department of Defense) acquisition outcomes is the mismatch between wants, needs, affordability, and sustainability."[7]

Delivering sustainable reconstruction projects can be a unique, but critical, aspect of post-conflict reconstruction. The country that receives the completed project must have the capability to sustain that project over the long-term. Sustainability includes operations and maintenance drivers such as spare parts, consumables, and training as well as organizational constructs and budgets for sustainment.[8] Delivering a project that the receiving country can not sustain is a wasted effort and misuse of U.S. taxpayers' dollars.

Post conflict reconstruction is inherently uncertain. The distrust and animosity between parties prior to a conflict prevents the eventual victors (often also those doing reconstruction) from having an accurate picture of the true status of the opponent's infrastructure. This was especially true in Iraq, where decades of neglect resulted in an infrastructure system on the verge of collapse.[9] Recognizing the unique aspects of the post-conflict environment and managing this uncertainty while minimizing risk is the essence of success in post-conflict reconstruction operations. As the Special Inspector for Iraq Reconstruction (SIGIR) noted: "The success of any post-conflict reconstruction effort depends in great part upon effectively employing the U.S. government's capacity to deploy efficiently and rapidly the means of relief and reconstruction: services, materials, and their supporting systems. This requires extant

governmental contracting and procurement processes that are well structured and optimized for use in contingency situations."[10]

The key to effective and efficient contingency construction contracting is matching the contracting vehicle to requirement while minimizing risk. For the purposes of this paper, risk is defined as the inefficient use of money; or said another way: paying more for a project than was required or paying for a project that was never completed. In contingency contracting, uncertainty and speed are the two greatest drivers of risk. Typically, military and civilian leaders will push to get projects started as early as possible, often before a clear and detailed assessment of the requirements can be obtained. This uncertainty causes acquisition officials to use contracting vehicles such as cost-plus contracts, where a contractor is reimbursed all costs incurred and the government assumes uncertainty-based risk, versus less risky options such as firm fixed price contracts.

History of Reconstruction in Iraq and Select Lessons Learned

Early Planning and Execution

Planning for reconstruction in Iraq began in the summer of 2002. The original concept focused primarily on the Logistics Civil Augmentation Program (LOGCAP) contract as the primary vehicle for reconstruction. Kellogg Brown and Root (KBR), a subsidiary of Halliburton Inc., had won a competitive selection for the world-wide LOGCAP III contract in 2003.[11] In the summer of 2002, the Deputies Committee of the National Security Council identified the potential need to repair and restore Iraq's oil infrastructure after a war with Iraq and tasked the Department of Defense (DOD) to prepare appropriate plans. Because of KBR's unique technical knowledge and security clearances, DoD turned to KBR under the LOGCAP III contract for technical assistance. This eventually led to the March 2003 sole-source award of an indefinite delivery/indefinite quantity (IDIQ) contract with a ceiling of $7B to restore Iraq's oil infrastructure. This contract was awarded and administered by the U.S. Army Corps of Engineers (USACE) under its Task Force Restore Iraqi Oil (TF RIO).[12]

The U.S. Agency for International Development (USAID) began its reconstruction planning in September 2002, focused primarily on humanitarian relief. In late January, 2003, DOD formed the Office of Reconstruction and Humanitarian Assistance (ORHA), led by LTG (retired) Jay Garner.[13] ORHA was tasked with planning for and executing reconstruction and relief efforts across Iraq, but was severely hampered by a lack of qualified acquisition personnel as well as questionable directional authority over non-DOD activities.[14] The failure of this ad-hoc organization to effectively consolidate requirements and develop efficient acquisition strategies

portended what is a persistent theme in lessons learned from Iraq reconstruction: ad-hoc organizations lack the inherent knowledge and specialized acquisition capabilities to effectively manage reconstruction activities, especially in the complex and uncertain post-conflict environment.

In late April 2003, DOD established the Coalition Provisional Authority (CPA) under Ambassador Paul Bremer III as the civil administrator for Iraq.[15] From May 2003 until its dissolution in June 2004, CPA "was the United Nations recognized authority responsible for the temporary governance of Iraq and for overseeing, directing, and coordinating reconstruction efforts."[16] DOD originally tasked the Department of the Army as the executive agent of ORHA, and later transferred the responsibility for CPA.[17] One of the key, early sources of funding for CPA reconstruction activities was the Development Funds for Iraq (DFI). DFI was created by United Nations (UN) Security Council Resolution 1483 (UNSCR 1483), which directed Iraqi oil revenue, funds accrued by the UN under the Oil for Food Program, and seized assets be placed into the DFI fund.[18] The DFI began with $1B from the Oil for Food Program and grew to over $20B. During its existence, the CPA applied $3.35B in DFI funds to relief and reconstruction projects in a variety of programs.[19]

Iraq Relief and Reconstruction Funds

In April 2003, the U.S. Congress appropriated its first funds for Iraq reconstruction under Public Law 108-11 (PL 108-11). First, it created the Iraq Relief and Reconstruction Fund (IRRF 1) and appropriated $2.475B for the use by lead agencies (USAID, Department of State (DOS), and DOD in the reconstruction of Iraq).[20] USAID ended up receiving approximately 70% of the IRRF 1 appropriation and applying it to the Bechtel contract (Bechtel I), awarded in a limited competition. This contract was used to initiate reconstruction in many infrastructure sectors, including electricity, transportation, education, and agriculture.[21] Second, it created established the Natural Resource Risk Remediation Fund (NRRF) and placed $800M available for TF RIO to use in Iraqi oil infrastructure rehabilitation.[22] Finally, it created the Iraq Freedom Fund (IFF) which appropriated $300M that was used by USACE to fund contracts under its Task Force Restore Iraq Electricity (TF RIE) program. Task Force RIE was established to "kick start" restoration of the Iraqis electrical infrastructure. TF RIE contracts were executed through task orders submitted under preexisting USACE contracts.[23]

In the summer of 2003, the CPA began more detailed planning for reconstruction. The World Bank/UN had estimated reconstruction costs for Iraq at $56B.[24] CPA generated an initial proposal to "get things started" through targeted programs, focusing on large scale

infrastructure programs.[25] This proposal resulted in the $18.4B IRRF 2 program, created under Public Law 108-106 (PL 108-106) in November 2003, with funds allocated across ten sectors as follows[26]:

- Security and Law Enforcement: $3.24B
- Justice, Public Safety, Infrastructure, and Civil Society: $1.32B
- Electricity: $5.56B
- Oil: $1.89B
- Water Resources and Sanitation: $4.33B
- Transportation and Telecommunication: $500M
- Roads, Bridges, and Construction: $370M
- Private Sector Development: $153M
- Health Care: $793M
- Education, Refugees, Human Rights, and Governance: $280M

IRRF 1 differed from IRRF 2 in many areas (in addition to scale, $2.5B in IRRF 1 versus $18.4B in IRRF 2). Most significantly, IRRF 2 specifically allocated funding across sectors with restrictions on moving funds between sectors, which resulted in reduced flexibility in execution. IRRF 2 contracting was predominantly managed by DOD as opposed to USAID and the law specified the use of full and open competition.[27] In accordance with PL 108-106, the CPA created a spend plan for the IRRF-2, codified in a required "Section 2207" report submitted to Congress in January 2004. This report listed 2,300 separate projects for IRFF 2 funding.[28] Due to lack of time and in-country staff, the CPA was unable to develop detailed scopes and accurate estimates for most of these projects, with many projects actually being nothing more than "place holders."[29] This began a pattern of uncertainty and lack of definite requirements that has plagued the IRRF 2 program since its outset.

In August 2003, the CPA created the Program management Office (PMO) to "execute the reconstruction program."[30] The PMO, under the leadership of RADM (retired) David Nash (a former Seabee) was another ad-hoc, temporary organization. Initially, PMO's primary focus was development of the IRRF 2 appropriation request and award of a series of contracts to execute the IRRF 2 program. Due to anticipated difficulties in recruiting and deploying U.S. government employees to oversee the construction program, PMO used a tiered approach of contracts for program and project management as well as project execution. The tiers consisted of an overall program management contract, six sector specific program management oversight (SPMO) contracts, and twelve Design – Build (DB) contracts spread across the six primary sectors.[31] The D-B contractors would both design and build the individual projects

under a cost-plus award fee contract. Due to the enormous scope of the acquisition effort and the limited time, multiple agencies were tasked to perform the acquisition. With the exception of the oil sector contractors, the contract proposals were all received in February 2004 and

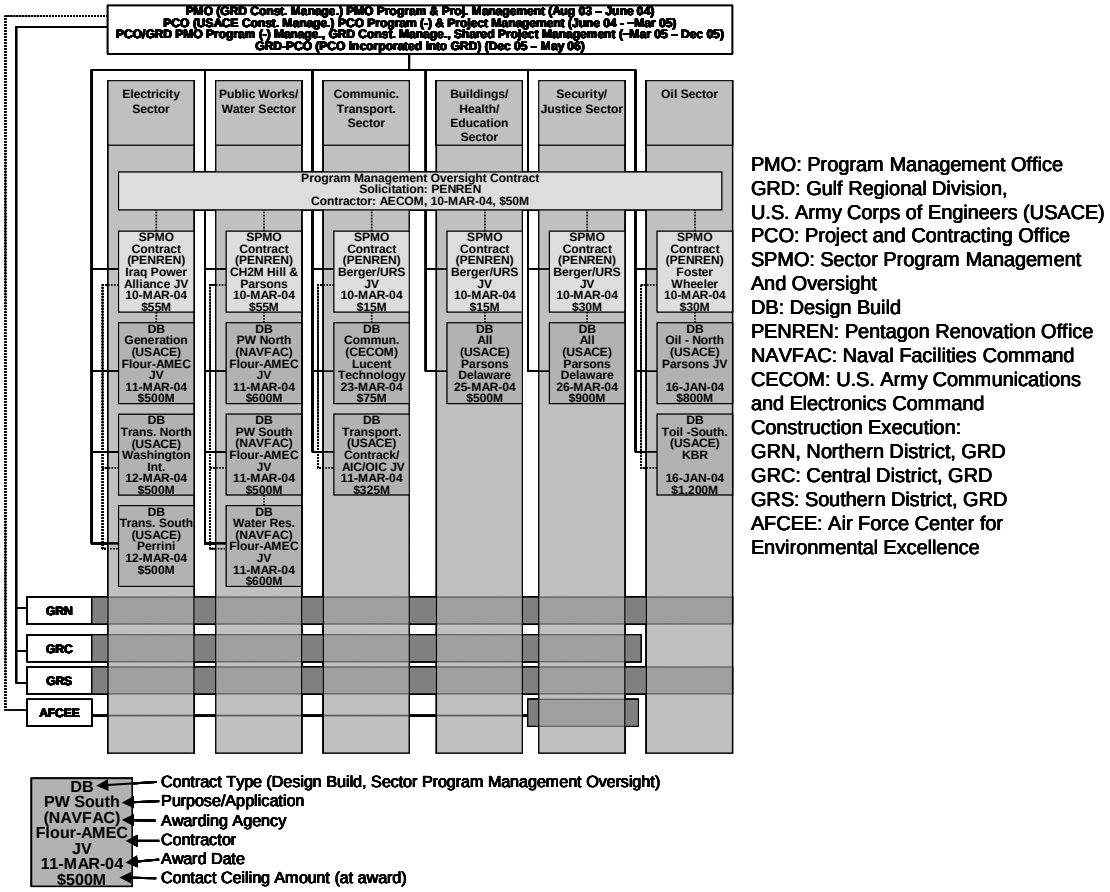

Figure 1: IRRF 2 Execution Plan

awarded in March of that year. Oil contract procurement had been initiated and completed earlier.[32] The reliance on contractors to perform project and program management created and environment where contractors where watching contractors, under the supervision of government employees. At figure 1 is a graphical depiction of the IRRF 2 execution plan, depicting the sectors, funds, contractors, and execution and oversight organizations. This figure was developed from numerous sources, predominantly from information contained in Special Inspector General for Iraq Reconstruction (SIGIR) report Iraq Reconstruction, Lessons in Contracting and Procurement.[33]

The Gulf Regional Division (GRD) of USACE, activated in January 2004 was originally only given construction management responsibilities, in addition to ongoing execution of TF RIO and TF RIE projects. In early 2004, it became apparent that the training and equipping of Iraqi security forces would become a critical task. Part of this task was the renovation and construction of facilities for the New Iraqi Army (NIA). CPA and PMO recognized that the award

and mobilization of the DB contracts would take time, and asked the Air Force Center for Environmental Excellence (AFCEE) to provide a wide range of construction services in support of the NIA under their Worldwide Environmental Restoration and Construction Contract (WERC). The AFCEE contract had 23 separate contracts with a combined capacity of $10B.[34] While the AFCEE contract did provide an immediate jump start, numerous audits have found that the work was executed beyond the original scope of the contract and oversight was questionable.[35]

With the transfer of authority from the CPA to the Interim Iraqi Government (IIG) in June 2004, the PMO was disestablished. All remaining DFI funds were turned over the IIG. The Project and Contracting Office (PCO), another ad-hoc temporary organization was created and given the responsibility for acquisition and project management support. At the same time, overall responsibility for the reconstruction was passed from DOD to DOS, and the Iraq Reconstruction Management Office (IRMO) was created within the new U.S. Embassy in Baghdad and IROM was given the responsibility for strategic planning and project prioritization, monitoring spending, and coordinating with military leaders.[36] In December 2005, with much of the IRRF 2 construction underway, PCO and GRD combined into a single organization.[37] USAID continued to execute contracts, primarily with the Bechtel II contract (awarded as follow-on to the IRRF-1 contract).[38]

The general perception was that the large DB contracts were slow to get started, resulting in issues such as large administrative costs for minimal work early in the program.[39] This slow start was caused by the inability of the government to provide direction in the form of clearly defined task orders and a general uncertainty over priorities.[40] Lack of work caused one contractor to terminate his contract and leave the country before actually starting substantial construction.[41] Additionally, it became apparent that instead of large-scale capital infrastructure projects, more small and middle size projects were needed. As a result, leadership at Multi-National Forces Iraq (MNFI) sought alternatives to the large DB contracts for project execution. Primary among these was direct contracting to Iraqi firms, usually under a firm-fixed-price contract.[42] This resulted in a reduction of multiple tiers of sub-contractors and (in the electricity sector) an estimated savings of 20 – 50%.[43]

The final shift in priority for IRRF 2 construction was an increased focus on capacity building within the Iraqi government to ensure that completed projects were sustainable. With both IRMO and PCO scheduled to “sunset” on May 10, 2007, a detailed plan for this effort is essential.[44] This is a lesson learned from some early projects, which failed at turnover or shortly thereafter, creating a concern that “the Iraqis may lack the skills or resources to sustain the

long-term operation of complex facilities."[45] As a result, IRMO, GRD-PCO and other reconstruction agents in Iraq have developed a five tier program for capacity development. Tier 5 consists of those facility-level actions such as training and mentoring plant operators and is usually done by the construction contractor. Tier 4 applies to intra-ministerial capabilities, while Tier 3 focuses on inter-ministerial requirements. Tiers 2 and 1 are focused on laws, regulations, and policies at the highest level of government.[46] Another key component of long term project sustainability is the ability of the receiving government to budget for the continued operation and maintenance of delivered projects. IRMO estimates that the annual sustainment costs for IRRF projects in Iraq will be $1.2B.[47] In the short term, the U.S. government will fund some of these costs out of IRRF 2 funds.

Smaller Scale Projects

The focus of IRRF 2 on large scale, capital infrastructure projects created a gap in effects that could be seen by the average Iraqi. While a large power plant constructed outside town might have a long term future benefit, it did nothing to help the average Iraqi unless it connected to his home. What was needed was a series of projects to connect the "first mile" between the ongoing or planned IRRF 2 project and the average Iraqi's home.[48] SIGIR describes the situation and subsequent programs as follows:

> Most IRRF funding was used for design-build infrastructure projects, security forces training, and equipment procurement. The IRRF contracting strategy generally did not focus on supporting smaller projects at the local level that could provide immediate improvement in basic services. But U.S. field commanders in Iraq noted the need for exactly this kind of localized project. The Commander's Emergency Response Program was created by the CPA administrator to contract, procure, and implement small projects in a short timeframe. A similar program, the Commander's Humanitarian Relief and Reconstruction Program (CHRRP) was subsequently developed by MNF-I [Multi-National Forces – Iraq] to target reconstruction of water and sewage services, primarily in Baghdad.[49]

CERP and CHHRP were unique in that they were not derived from doctrine or legislation, but developed by commanders who saw a need for rapid and responsive reconstruction contracting. While both offered great flexibility and placed the authority with commanders for deciding what to contract, CERP was the more flexible of the two. Approval level for CERP projects depended on the level of command. CHRRP was focused on Baghdad water and sewer services and eventually totaled $220M, with $86M coming from reprogrammed IRRF-2 and the rest coming from the Iraqi government.[50] CERP proved to be even more successful. In the first 18 weeks of the program, more than 1,800 low cost but high impact projects were

completed.[51] In all, CERP has received a total of $1.4B from a combination of seized assets, DFI, IRRF-2, and direct appropriations of additional U.S. dollars by Congress.[52]

Analysis and Recommendations

The review and analysis of post-conflict reconstruction operations reveals several key shortcomings and leads to four distinct recommendations. These are: flexibility in execution (like that offered by CERP) is essential and use of inflexible, large design-build contracts should be minimized; military organizations, supported by civilian expertise, should assist in the overall development of requirements; a single U.S. government agency should be designated as the lead agency throughout the duration; and finally leadership needs to make a clear decision as to when security is a pre-cursor for reconstruction rather than a result of reconstruction.

Flexibility

One of the key lessons learned from the Iraq reconstruction experience is that a tiered, phased approach is necessary for overall success. This provides for flexibility to match resources with requirements. Early on, the demand will be for quick restoration of essential services and their much needed positive effect on overall security. CERP or CERP-like programs are best suited to meet this need. Concurrently, military forces and available civilian experts, working with local and ministerial officials should be assessing needs and identifying requirements for larger scale infrastructure projects to be constructed later on, once the security environment permits. Early in a reconstruction effort, more risky contracting vehicles, such as cost-plus may be required, but every effort should be undertaken to convert to firm fixed price contracts as soon as possible. In the interest of capacity development and employment, contracts during all phases should be directly awarded to local or regional contractors to the greatest extent possible.

FM 3-24/MWCP 3-33.5 Counterinsurgency recognizes the role essential services play as a non-lethal effect in counterinsurgency, suggesting they will often be a Logical Line of Operation (LLO).[53] This was recognized by the 1st Cavalry Division as they planned and executed operations in Baghdad during 2004.[54] Large design-build contracts, like those originally envisioned for reconstruction in Iraq proved to be overly cumbersome for this critical function. In response, the U.S. Forces developed the highly successful CERP and CERP-like CHRRP programs. SIGIR described the need for the CERP program as follows:

> In hostile environments, the rapid provision of programs and projects that have a pacifying effect is essential, but complex contracting and procurement regulations can cause costly delays. CERP and CHHRP helped resolve this problem in Iraq by permitting commanders to respond rapidly through simplified

> contracting processes and thereby mitigate the pressing humanitarian needs they encountered daily in the filed. Both CERP and CHHRP succeeded in providing some of the most important reconstruction effects.[55]

While CERP-like programs are essential for rapid effects realized by quickly restoring essential services, appropriate levels of control are required to: ensure that funds are expended in a lawful manner and in accordance with their intended use; minimize the possibility of fraudulent use of funds; and ensure CERP-like programs remain focused on short-term restoration of essential services along with the concomitant beneficial effect of employing the local population. Controls similar to those implemented in Iraq appear to be appropriate and effective. These include: limiting single project level authority to $200K for brigade commanders and $500K for division commanders with respective single transaction limits of $50K and $100K, respectively; weekly reporting; and for projects greater than $10,000:

- Three competitive bids
- An identified project manager
- Payment for services as progress occurs.[56]

The clear success of CERP and CERP-like programs has led to the recommendation by audit groups such as the SIGIR that these programs be codified and institutionalized for future employment.[57] Further recognition of the value of CERP was given by the Iraqi Study Group under their recommendation 68: "The Chief of Mission Iraq should have the authority to spend significant funds along the lines of the Commander's Emergency Response Program."[58]

To assist in project scope development and evaluation of bids, commanders should seek out the assistance of civilian expertise, such as that included in USACE's Field Force Engineering (FFE) Teams assigned at the Brigade level or higher. These teams can assist in providing preliminary design information that will help specify the requirements for work to be performed. As a theater develops and security situation permits, commanders should seek to transition projects to organizations specifically intended to perform construction management and oversight, such as USACE provisional engineering districts.

The impact of over-reliance on large, cost-plus design-build contracts was felt throughout the Iraq reconstruction effort. The largest problems were caused by attempting to use these contractors before projects could be clearly defined. As a result, PCO often "authorized contractors to begin work before key terms and conditions, including the work to be performed and its projected costs were fully defined.[59] In March 2004, GAO found that $1.8B had been obligated on contracts without PCO and the contractors reaching agreement on the scope and cost of the work.[60] Since these contracts are cost-plus, the government is essentially liable for

all costs incurred by the contractor; even without a prior agreement on scope and cost. In a GAO audit, one contract was found to have been modified nine times, from an initial cost of $858K, to a final cost of $204M, without PCO and the contractor ever reaching agreement on scope and price.[61]

Another major drawback of using large, cost-plus contracts are the large administrative costs associated with in-country life support, security, management, and administration. GAO has recently estimated that these costs will equal $1.2B, or about 33% of the funds that will eventually go to the DB contractors.[62] In order to calculate and estimate these costs, PMO directed that 5 of the remaining 11 DB contractors (one was terminated and demobilized before beginning significant work) consolidate their administrative costs on a single Administrative Task Order (ATO) per DB contract.[63] During its review of the ATOs, SIGIR found that despite delays in assigning significant work to the DBs, they still racked up significant administrative costs. For the five DBs that had ATOs, during the 3 - 9 month period between mobilization and start of substantial work they invoiced for $62.1M in administrative fees on ATOs while only invoicing $26.7M in direct costs for project accomplishment.[64] This represents less than one-half of the DB contractors, as the other six did not have separate ATOs to cover administrative costs. This clearly shows the problem with mobilizing and using large design-build contractors before requirements (in the form of detailed scopes of work) can be clearly defined. For the one contract that was eventually terminated, only 28% of the total amount invoiced ($17.7M) went to direct project costs: the rest went to administrative costs.

Even after initiation of significant direct project work, the administrative costs for the DB contracts continued to be an excessively high portion of the total contract costs. Between January 2004 and May 2006, ATO costs ranged between 11% and 55% of the total costs invoiced by the five contractors with ATOs. This resulted in an average ATO cost of 26% of the total contract cost.[65] As stated, only 5 of the remaining DBs had ATOs and these ATOs did not cover all administrative costs, as some were limited in scope. Remaining administrative costs were borne on individual project task orders. Hence, the GAO estimate of 33% total administrative costs for all 11 DB contracts may be accurate. Looking at it another way, the five DB contractors expended an average of $541K per day in administrative costs between January 2004 and May 2006.[66] Extrapolating that figure from the five DBS with ATOs to all 11 DB contractors results in an estimate that the DB contractors were receiving a total of more than $1.2M dollars per day in administrative costs. Since these contracts were cost-plus, the contractors were paid these administrative costs regardless of work being performed, or lack thereof. The excessively high administrative cost associated with cost-plus design-build

contracts makes it clear that if used, they should only be used when the theater is sufficiently mature and secure and requirements have been clearly defined.

Another observed difficulty in the IRRF 2 program was lack of a clear strategic plan on which projects should be funded and how they should be executed. Additionally, individual projects often suffered from lack of detailed description of work requirements prior to attempting to contract for the work. Many projects were scoped and awarded with minimal input from the Iraqis, who best knew the requirements. In the water sector, difficulties defining the work led to disagreement between Iraqi authorities, U.S agencies, and the contractors. As a result, there were significant delays on 18 of 24 task orders (worth $873M), with the DB contractor continuing to accrue administrative costs during the delay.[67]

Requirements Development

In order to accumulate accurate reconstruction requirements, military units should utilize attached civilian expertise such as USACE FFE teams to survey infrastructure and develop rough estimates and scopes of work. These projects should be vetted with local officials, but care taken not to promise actual project accomplishment, especially if beyond the scope of a CERP-like program. This is in keeping with the "managing expectations" and "not making promises you can't keep" doctrine of counterinsurgency.[68] The projects developed at the unit level should be documented and consolidated up the respective military and civilian chains of command to help develop an accurate assessment of the total reconstruction needs. USACE and other agencies (such as USAID) should also consider contingency Architect/Engineer (A/E) contracts to provide contractor technical assistance in scope development and rough estimates of project costs. To minimize in-country civilian presence and reduce exposure to insecure conditions, civilian government agencies and A/E contractors should maximize reach-back for accomplishment of the majority of the most technical and time-consuming tasks.

Lead and Supporting Agencies

Reconstruction in Iraq was also hampered by a constantly changing array of organizations charged with leading and executing reconstruction. The overall lead for reconstruction transitioned from Department of Defense to Department of State with the transition of authority in Iraq in June 2004.[69] At the same time, execution responsibility remained with DOD in the form of PCO (later PCO-GRD). While interagency effort and collaboration were an absoulte requirement due to the large scope of the reconstruction effort, the overall effort often suffered from changes in lead agency and subordinate execution agencies. The overall effort also suffered from the seemingly never-ending array of temporary, ad-hoc execution and oversight

organizations such as ORHA, PMO, PCO and IRMO. The stand-up of each of these agencies was difficult, as they all struggled to recruit personnel, especially technical experts such as acquisition professionals.

For work beyond the scope and capability of military units under a CERP-like program, an existing agency, such as USAID or USACE should be designated as the lead agency before initiation of reconstruction and remain as the lead agency throughout the reconstruction effort. Other agencies should be designated as supporting contracting and execution agencies within their areas of expertise. The lead agency must be given the appropriate resources and authorities in order to ensure it has the stamina to see the reconstruction effort through to completion. The reconstruction experience in Iraq clearly shows that ad-hoc organizations should not be created for individual contingencies. Designation of a consistent lead agency would help reduce excessive personnel turnover, which has been cited by numerous audit agencies as one of the primary contributors to contracting difficulty. GAO has repeatedly reported on the impact "of the lack of adequate acquisition personnel and high turnover rates on reconstruction efforts."[70] SIGIR echoed GAOs findings and recommended the U.S. government "create a deployable corps of contracting personnel who are trained to execute rapid relief and construction contracting during contingency operations."[71] During an actual contingency, these contracting personnel should be placed under the lead agency, as appropriate.

Individual construction contract executing agencies should restrict their participation to their "core" competencies. While the temptation to get work done quickly may exist and agencies may be eager to assist, using agencies outside their core competencies can results in misapplication of resources such as those seen when the AFCEE environmental contracts were used to perform "bridge" reconstruction in the early days of IRRF 2 in Iraq.[72] Another example of work outside an agency's core competency was the expansion of the DOS contract for police training to include construction of police training facilities.[73] Specific core competencies would be USACE or Naval Facilities Engineering Command (NAVFAC) for construction of military facilities, similar to their responsibilities for U.S. construction of military facilities. AFCEE would more appropriately be used for environmental restoration contracts. USAID should emphasize contracting for efforts within its core competencies such as capacity development and small scale grant-type programs.

In addition to contracting within core competencies, agencies should be leveraged for their unique contracting capabilities and expertise. For example, the ability of USAID to issue cooperative agreements to Non-Governmental Agencies (NGOs) such as those used in the early days of Iraq[74] would be particularly effective in those areas where NGOs have the greatest

presence and acceptance by the local population. These cooperative agreements should be emphasize short term, high pay-off projecst focused on essential services and capacity development at the local level, similar to CERP. Another highly effective and valuable USAID program is the ability to issue "grants under contract," where a contractor is authorized, under specified conditions, to issue grants to NGOs.[75] Used in Iraq, they were found to be highly effective as they allowed USAID, through a contractor, to "jump start local civil administrations' ability to restore essential services."[76]

In addition to DOD (i.e. USACE, NAVFAC, and AFCEE) and USAID, other U.S. Government agencies should be tasked to perform reconstruction support within their designated areas of expertise. One example in the Iraq reconstruction program was utilization of the U.S. Trade and Developmental Agency (USTDA) to provide essential capacity development training in the energy sector. This training focused on leadership management, technical training, and human resources development, all sorely needed in Iraq.[77] Other U.S. government agencies should be tasked, as supporting agencies, to provide direct and contracting support within their core areas of expertise.

Reconstruction and Security

Finally, a clear decision should be made as to when reconstruction should no longer be used as a pre-cursor or key component of security, but rather as a condition of security. Clearly, early on in post-conflict operations, restoration of essential services is an essential enabler of security with its contribution of non-lethal effects and assistance in establishing the legitimacy of the government. However, there comes a point where a minimum acceptable level of security must be achieved before larger scale projects should be attempted. The cost of attempting construction in an insecure environment is being borne in Iraq today. Security for the DB contracts alone is estimated at $360M, or 10% of the total DB contract cost.[78] Large scale contracts should demand an acceptable level of security as a pre-cursor for project initiation and a continuing requirement for project completion. The effect of this would be three-fold. First, the population in areas with less than satisfactory security would see large projects going on in areas with adequate security, creating an incentive for the people to turn insurgents over to government forces in order to get similar benefits in their area. Second, the population in secure areas would strive to keep their areas secure in order to allow large scale reconstruction projects to continue. Finally, overall project costs would be reduced through reduced security costs and increased government oversight allowed by the more secure conditions.

Conclusion

Effective post-conflict reconstruction operations have strategic significance, in that they can lead to secure and stable nations in key areas of the world. Current Army doctrine lists reconstruction and repair of essential services as a critical non-lethal effect generating activity during counterinsurgency operations that can enhance the overall security of the counterinsurgent forces. This doctrine was borne out during the days immediately following the invasion of Iraq in 2003. As reconstruction in Iraq continued, many hard lessons were learned that should be used to shape future reconstruction operations.

The first lesson learned was that flexibility in execution, especially in the early stages, is the key to success. Programs such as the Commanders Emergency Response Program (CERP) had a very high payoff for a limited investment and should be institutionalized for future stability and security operations. Iraq also demonstrated that cost-plus design-build contracts should not be utilized until there is sufficient security and clear definition of requirements. Their high security and administrative costs makes them inefficient in uncertain environments.

Second, military organizations, with support from civilian expertise, should be tasked to assist in the development of the overall reconstruction requirements. This process should include local, regional, and national leaders and, along with other specified capacity development programs, used to develop governance capabilities in the host nation government. This process should also be integrated and synchronized with the work of international organizations such as the UN, Non-Governmental Organizations, other donor nations, and private investors. This will assist in ensuring the delivery of projects that are capable of being sustained by the receiving government.

Third, for work beyond the scope of a CERP-like rapid response program, one U.S. government agency should be designated as the lead agency for reconstruction planning and execution and remain so throughout the life of the reconstruction program. Other agencies should be designated as supporting agencies and directed to perform reconstruction contracting activities within their core competencies. Ad-hoc organizations such as PMO and PCO should not be created for post-conflict reconstruction contract execution. Designation and proper resourcing of a designated lead agency would enhance much-needed personnel stability, especially in the acquisition area.

Finally, a clear decision needs to be made as to when security is a pre-cursor for reconstruction rather than a result of reconstruction and restoration of essential services. While restoration of essential services immediately following conflict is essential to overall operational and even sometimes strategic success, larger scale reconstruction projects should not be

initiated or continued unless a relatively secure environment exists. This will both reduce costs and incentivize security with the affected populations.

In today's volatile and uncertain global security environment, future conflict is almost assured. Despite the challenges encountered in Iraq, the US will certainly be leading reconstruction efforts following these conflicts. Incorporating lessons learned in the form of the above four recommendations can help ensure strategic success in these operations.

Endnotes

[1]U.S. Department of the Army, *Counterinsurgency*, Field Manual FM 3-24 (Washington, D.C.: U.S. Department of the Army, December, 2006), 1-27.

[2]Ibid., 1-21.

[3]MG Peter W. Chiarelli and MAJ Patrick R. Michaelis, "Winning the Peace, The Requirement for Full Spectrum Operations," *Military Review* (July/August 2005), 7.

[4]Ibid., 10.

[5]U.S. Government Accountability Office (GAO), *Testimony before the Committee on Government Reform, House of Representatives: Rebuilding Iraq, Continued Progress Requires Overcoming Contract Management Challenges*, GAO 01-1130T, statement of Katherine V. Schinasi, Managing Director, Acquisition and Source Management (Washington, D.C.: U.S. Government Accountability Office, September 28, 2006), 3.

[6]Ibid., 5.

[7]Ibid., 5.

[8]Special Inspector General for Iraq Reconstruction (SIGIR), *Transition of Iraq Relief and Reconstruction Fund Projects to the Iraqi Government*, SIGIR-06-017 (Washington, D.C.: SIGIR, July 28, 2006), 1 – 2.

[9]Chiarelli and Michaelis, 10.

[10]Special Inspector General for Iraq Reconstruction (SIGIR), *Iraq Reconstruction, Lessons in Contracting and Procuremen*t (Washington, D.C.: SIGIR, July 2006), 10.

[11]Ibid., 10.

[12]Ibid., 17.

[13] Michael R. Gordon and GEN (R) Bernard E. Trainor, *Cobra II, The Inside Story of the Invasion and Occupation of Iraq* (New York, NY, Pantheon Books, 2006), 149 – 151.

[14]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 21.

[15]Ibid., 23.

[16]GAO 01-1130T, 3.

[17]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 24.

[18]United Nations, United Nations Security Council Resolution 1483, 21 May 2003, available from hhtp://www.un.org/News/dh/iraq/iraq-blue-res-052103en.pdf, accessed 28 January 2007.

[19]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 25.

[20]Ibid. 27.

[21]Ibid., 30.

[22]Ibid., 27.

[23]Ibid., 36.

[24]Ibid., 39.

[25]Ibid.

[26]Ibid., 41.

[27]Ibid.

[28]Ibid., 46.

[29]Ibid., 45.

[30]Ibid., 38.

[31]GAO 01-1130T, 3.

[32]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 53 – 61.

[33]Ibid., 15 – 75.

[34]Ibid., 51.

[35]Ibid., 52.

[36]*GAO 01-1130T*, 3.

[37]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 76.

[38]GAO 01-1130T, 3.

[39]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 73.

[40]Special Inspector General for Iraq Reconstruction (SIGIR), *Review of Administrative Task Orders for Iraq Reconstruction Contracts*, SIGIR-06-028 (Washington, D.C.: SIGIR, October 23, 2006), 9 - 11.

[41]U.S. Government Accountability Office, *Rebuilding Iraq, Status of DOD's Reconstruction Program*, GAO 07-30R (Washington, D.C.: U.S. Government Accountability Office, December 15, 2006), 9.

[42]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 75.

[43]GAO 07-30R. 9.

[44]SIGIR 06-017, i.

[45]Ibid., 1.

[46]Ibid., 2.

[47]Ibid., 10.

[48]MG Peter W. Chiarelli and MAJ Patrick R. Michaelis, 10.

[49]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement,* 81.

[50]Ibid., 89- 90.

[51]Ibid., 88.

[52]Ibid., 86.

[53]FM 3-24, 5-6.

[54]Chiarelli and Michaelis, 14.

[55]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 81.

[56]Ibid., 86.

[57]Ibid., 97.

[58]James A. Baker, III and Lee H. Hamilton, co-chairs, Iraq Study Group, *The Iraq Study Group Report* (Washington, D.C.: U.S. Institute for Peace, December 2006), 59. available from http://www.usip.org/isg/iraq_study_group_report/report/1206/index.html, accessed 3 January 2007.

[59]GAO 01-1130T, 6.

[60]Ibid.

[61]Ibid.

[62]GAO 07-30R. 7.

[63]SIGIR-06-028, 2.

[64]Ibid., 9.

[65]Ibid., 11.

[66]Ibid.

[67]GAO 01-1130T, 7.

[68]FM 3-24, 5-8.

[69]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 68 – 69.

[70]GAO 01-1130T, 9.

[71]SIGIR, *Iraq Reconstruction, Lessons in Contracting and Procurement*, 98.

[72]Ibid., 52.

[73]Ibid., 33

[74]Ibid., 29.

[75]Ibid., 30.

[76]Ibid.

[77]SIGIR-06-017, 9.

[78]GAO 07-30R. 2.